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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/058,961 | 01/28/2002 | Thomas Algic Abrams JR. | MS1-894US | 4507 |
| 22801 | 7590 | 02/22/2006 | EXAMINER | |
| LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201 | | | CZEKAJ, DAVID J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2616 | |

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/058,961 | Applicant(s) ABRAMS, THOMAS ALGIE | |
| | Examiner Dave Czekaj | Art Unit 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33,35-39,50-62,64-70,72,73,79 and 80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33,35-39,50-62,64-70,72,73,79 and 80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/15/05 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-33, 35-39, 50-62, 64-70, 72-73, and 79-80 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarnoff et al. (6864913), (hereinafter referred to as "Tarnoff") in view of Zdepski et al. (6606746), (hereinafter referred to as "Zdepski") in further view of Hamamatsu et al. (6996184), (hereinafter referred to as "Hamamatsu").

Regarding claims 1 and 20, Tarnoff discloses an apparatus that relates to film conversion (Tarnoff: column 1, lines 10-11). This apparatus comprises

“converting an analog 35 or 16mm film of duration greater than 1 hour to digital video data with a frame rate of approximately 24 frames per second and one pixel or line resolution of at least 1280” (Tarnoff: figures 8A-8B, wherein the frame rate is 24 fps, the line resolution is 1280) and “receiving the digital video data from the storage” (Tarnoff: figure 5, wherein the storage is the memory). However this apparatus lacks storing the data in the AVI format, compressing the data using a ration of at least 50:1, and removing blockiness as claimed. Zdepski teaches that MPEG compression can achieve compression ratios of more than 200:1 (Zdepski: column 2, lines 1-2). Zdepski further discloses “storing the digital data in the AVI format” (Zdepski: column 5, lines 34-36) and “transmitting the data via a network” (Zdepski: figure 1). Hamamatsu teaches that blockiness, or mosquito noise, degrades the quality of the image and should therefore be removed (Hamamatsu: column 1, lines 36-37, column 8, lines 4-13, wherein the blockiness is the mosquito noise). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Tarnoff, add the compression ratios taught by Zdepski, and add the blockiness removal taught by Hamamatsu in order to obtain an apparatus that can successfully transmit high quality data over a limited bandwidth network by having a large compression ratio.

Regarding claims 2-5, although not disclosed, it would have been obvious to receive the data through a digital serial interface having the SMPTE

specification (Official Notice). Doing so would have been obvious in order to transmit/receive data over a secure connection.

Regarding claims 6-7, Tarnoff discloses "the digital video data has a resolution of 1280 by 720 and 1920 by 1080" (Tarnoff: figure 8B).

Regarding claims 8-9, although not disclosed, it would have been obvious to have a sampling format of 4:2:2 and 4:2:0 (Official Notice). Doing so would have been obvious in order to provide a better picture by sampling the input image at the correct format.

Regarding claim 10, Zdepski discloses "compressing the video data using an integer transform" (Zdepski: column 1, lines 60-65, wherein MPEG compression utilizes integer transforms).

Regarding claim 11, Tarnoff discloses "converting uses a telecine" (Tarnoff: column 1, lines 14-15).

5. Claims 12-16, 19, 21-33, 35-39, 50-51, 64-70, 73, and 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarnoff et al. (6864913), (hereinafter referred to as "Tarnoff") in view of Zdepski et al. (6606746), (hereinafter referred to as "Zdepski") in further view of Hamamatsu et al. (6996184), (hereinafter referred to as "Hamamatsu") in further view of Watkins et al. (6507672), (hereinafter referred to as "Watkins").

Regarding claim 12, note the examiners rejection for claim 1, and in addition, claim 12 differs from claim 1 in that claim 12 further requires receiving the data from a recorder. Watkins teaches that recorders can be built using few,

low-cost components (Watkins: column 11, lines 60-64, wherein the recorders are the multimedia terminals). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Tarnoff, add the compression ratios taught by Zdepski, add the blockiness removal taught by Hamamatsu and add the recorders taught by Watkins in order to obtain an apparatus that provides a cost efficient means for inputting video.

Regarding claim 13, Watkins discloses "receiving data from a network" (Watkins: column 12, lines 1-14).

Regarding claim 23, Watkins discloses "the subsequent decompression and playback of the compressed video produces video of DVD quality" (Watkins: figure 3, column 7, lines 57-60).

Regarding claims 25 and 28, Watkins discloses "transmitting the video at a rate of approximately .5 Mbps to 10 Mbps" (Watkins: column 11, lines 66-67-column 12, lines 1-8, wherein the video can be transmitted up to 10 Mbps).

Regarding claim 26, Watkins discloses "transmitting the video at a plurality of rates" (Watkins: column 11, lines 66-67-column 12, lines 1-8, wherein the plurality of rates are the high and low bandwidth channel rates).

Regarding claim 27, Watkins discloses "the rates are in a range from approximately .1 Mbps to 20 Mbps" (Watkins: column 11, lines 66-67-column 12, lines 1-8, wherein the video can be transmitted up to 10 Mbps).

Regarding claims 29-30, although not disclosed, it would have been obvious to transmit or store at least 5 Gb of data or video having a total runtime of 2 hours (Official Notice). Doing so would have been obvious in order to make the synchronization more efficient by piecing together fewer chunks of data.

Regarding claim 31, Watkins discloses "transmitting or storing the compressed video to a server" (Watkins: figure 7, item 606).

Regarding claim 32, although not disclosed, it would have been obvious to store the compressed data on a tape (Official Notice). Doing so would have been obvious in order to make the apparatus more versatile by being able to transport the tape from one place to another.

Regarding claim 33, Watkins discloses "storing the compressed video on a DVD disk" (Watkins: figure 3, column 7, lines 58-60).

Regarding claim 35, Watkins discloses "transmitting or storing the data in an advanced systems format including a top-level header object and data object" (Watkins: figure 3, column 7, lines 58-60, wherein the advanced systems format is the DVD disk. The examiner notes that a DVD disk is composed of header and data objects).

Regarding claim 36, Watkins discloses "transmitting the video to a DVD recorder" (Watkins: figure 3, item 318, wherein the record head records the information onto the DVD).

Regarding claim 37, Zdepski discloses "transmitting the video via satellite" (Zdepski: figure 1).

Regarding claims 38-39, Watkins discloses "transmitting the video via cable and a network" (Watkins: column 12, lines 1-8, wherein the cable is the cable modem).

Regarding claim 50, note the examiners rejection for claims 1 and 24.

Regarding claim 51, note the examiners rejection for claim 13.

Regarding claims 62 and 64-70, note the examiners rejections for claims 14-21, 23, 25, 30, 34-35, 37-38, and 40, and further note that decompressing and receiving are the complimentary operations to compressing and storing.

Regarding claim 73, note the examiners rejection for claims 1, 24, and 29.

Regarding claim 14, Zdepski discloses "compressing the video using block-based motion predictive coding to reduce temporal redundancy" (Zdepski: column 2, lines 1-39, wherein reducing temporal redundancy using motion coding is well known within MPEG compression techniques).

Regarding claim 15, Zdepski discloses "compressing the data using transform coding to reduce spatial redundancy" (Zdepski: column 2, lines 1-39, wherein transform coding is well known within MPEG compression techniques).

Regarding claim 16, note the examiners rejection for claims 14 and 15.

Regarding claim 19, although not disclosed, it would have been obvious to compress the data using a ratio of 100:1 (Official Notice). Doing so would have been obvious in order to successfully send the data over a limited bandwidth network.

Regarding claim 21, Zdepski discloses "transmitting from a server"
(Zdepski: figure 1).

Regarding claim 22, Zdepski discloses "transmitting to a computer with a
software-based decompression algorithm" (Zdepski: figure 3A).

Regarding claim 24, Tarnoff discloses "the decompression and playback
produces video having one pixel resolution of at least 720 and the other greater
than 576" (Tarnoff: figures 8A-8B).

Regarding claims 79-80, note the examiners rejection for claim 1.

6. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Tarnoff et al. (6864913), (hereinafter referred to as "Tarnoff") in view of Zdepski et al.
(6606746), (hereinafter referred to as "Zdepski") in further view of Hamamatsu et al.
(6996184), (hereinafter referred to as "Hamamatsu") in further view of Haldeman et al.
(6801576), (hereinafter referred to as "Haldeman").

Regarding claims 17-18, note the examiners rejection for claim 1, and in
addition, claims 17-18 differ from claim 1 in that claims 17-18 further require
compressing using a Windows Media codec. Haldeman teaches that one way to
reduce video bandwidth is to compress the video before distributing it using
Windows Media (Haldeman: column 1, lines 35-40). Therefore, it would have
been obvious to one having ordinary skill in the art at the time the invention was
made to take the apparatus disclosed by Tarnoff, add the compression ratios
taught by Zdepski, add the blockiness removal taught by Hamamatsu and add

the Windows Media codec taught by Haldeman in order to obtain an apparatus that can transmit video over limited bandwidth networks.

7. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tarnoff et al. (6864913), (hereinafter referred to as "Tarnoff") in view of Zdepski et al. (6606746), (hereinafter referred to as "Zdepski") in further view of Hamamatsu et al. (6996184), (hereinafter referred to as "Hamamatsu") in further view of Melen et al. (6631205), (hereinafter referred to as "Melen").

Regarding claim 72, note the examiners rejection for claim 50, and in addition, claim 72 differs from claim 50 in that claim 72 further requires a lenticular display. Melen teaches that lenticular displays eliminate the need for special eyeglasses or headgear when viewing stereoscopic images (Melen: column 1, lines 18-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Tarnoff, add the compression ratios taught by Zdepski, add the blockiness removal taught by Hamamatsu and add the lenticular display taught by Melen in order to obtain an apparatus that is more appealing to a user by eliminating the need for headgear and eyeglasses.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Monday - Friday 9 hours.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJC


WU LE
PRIMARY EXAMINER